

TOWN OF ARLINGTON
TOWN MEETING ELECTRONIC VOTING STUDY COMMITTEE

February 6, 2013

Call to Order

The regular meeting of the Town Meeting Electronic Voting Study Committee was called to order by Committee Chair Eric Helmuth in the Second Floor Meeting Room of the Town Hall Annex on Wednesday, February 6, 2013, at 7:30 PM.

Quorum

A quorum was present: Elizabeth Patton, Raymond Charbonneau III, Steve Storch, Wes Beal, Adam Auster, and Eric Helmuth.

Alan Jones and Town Chief Technology Officer David Good were also present. John Leone arrived after the start of the meeting.

Approval of Minutes

MOTION:
*Correction
of Minutes*

Mr. Charbonneau moved that the minutes of the January 16, 2013, joint meeting be corrected by deleting the phrase “per year” from the description of the purchase price on page 3.

The motion passed.

MOTION:
*Correction
of Minutes*

Mr. Auster moved that the minutes of the January 16, 2013, joint meeting be corrected by adding the following note after the quorum count on the first page:

Alan Jones was also present. Elizabeth Patton arrived shortly after the start of the meeting.

The motion passed.

MOTION:
*Approval
of Minutes*

Mr. Beal moved that the minutes of the January 16, 2013, joint meeting be approved.

The motion passed.

MOTION:
*Correction
of Minutes*

Mr. Auster moved that the minutes of the regular January 16, 2013, meeting be corrected by adding the following note after the quorum count on the first page:

Alan Jones was also present.

The motion passed.

MOTION:
*Approval
of Minutes*

Mr. Helmuth moved that the minutes of the regular January 16, 2013, meeting be approved.

The motion passed.

Reports

Chair

Committee Chair Eric Helmuth reviewed the Committee's pending deadlines and distributed a revised draft work plan. A copy of that draft is appended to these minutes.

He noted that the Committee's request for funding is scheduled for review by the Finance Committee on February 25.

A central issue, he said, is that of lease versus purchase, of which the Finance Committee will want to know the Committee's recommendation.

*Chief
Technology
Officer*

David Good, Arlington's chief technology officer, said that operating an electronic voting system would likely require additional staff time to prepare and operate an electronic voting system, at direct cost to his department.

He said that this cost could be greater under a purchased system.

He said that the issue of technology support for Town Meeting generally spans several departments and is evolving.

He said that the cost to his department of a staff member to operate the system during Town Meeting might be about \$1,000 per 10-night meeting.

Voting technology is also evolving and could grow less costly if purchased later rather than sooner, he said.

He said the RFI Subcommittee had written a very effective request for information to voting-system vendors that addressed all the questions and concerns he would have.

New Business

DISCUSSION: *Responses to RFI*

Mr. Helmuth distributed the two responses to the Request for Information that the Town has received. Copies of these, from Option Technologies Interactive and Quizdom, are attached to these minutes.

He suggested that the question before the Committee is, does the Committee have enough confidence in its understanding of the technology and other issues to make a recommendation to purchase or lease an electronic voting system?

He said that the most expensive system, the high-end product from Option Technologies Interactive, would cost about \$13,000 to lease for ten Town Meeting sessions and about \$29,000 to purchase outright.

A lease from that vendor would include provision of a staff member to manage and maintain the equipment, and operate the voting computer, he said.

Mr. Storch said that based on the responses to the RFI, only the most expensive package from Option Technologies Interactive would provide Town Meeting members with personal confirmations on their handsets of their individual votes as received by the computer that tabulates the votes.

Ms. Patton said that only the systems from Option Technologies Interactive save voting data in a database.

She added that only the data from those systems could be corrected by the operator, according to the RFI responses.

DISCUSSION:
Bylaws

Mr. Auster, a member of the Bylaws Subcommittee, said the Committee might want to consider providing Town Meeting with choices on some issues.

For example, he said, the Committee might craft two recommendations, or a choice in the form of an amendment, that would let Town Meeting decide how to treat voting data for non-roll-call electronic tallies.

The choice would be whether to publish or suppress the full voting data from electronic tallies that are not advanced to a formal electronic roll call, he said.

He said the Committee might chose to provide explicit choices for several issues if it could not agree on a recommendation, or even if it could but anticipated concern or disagreement at Town Meeting.

Mr. Beal, a member of the Bylaws Subcommittee, said another issue was the level of detail that the bylaw should set forth.

He and Mr. Leone said the specificity of bylaws governing Town Meeting procedure varied considerably among Massachusetts towns.

Mr. Leone, who chairs the Bylaws Subcommittee, said he had drafted a bylaw amendment that would parallel the existing one, providing for electronic alternatives to (1) the rising vote and (2) the roll call vote.

He said another unresolved issue is the question of whether an appeal to an electronic roll call would entail a second vote or just the revelation of otherwise hidden voting data from the electronic tally.

The discussion that followed focused on this issue of revote versus reveal upon appeal to electronic roll call.

Committee members said that revoting would be more analogous to the current procedure and would be more familiar to Town Meeting members

However, they said, revealing the roll-call data instead of revoting was in some ways more logical.

Some said revealing data would increase accountability because members would have to assume at the time they voted that their votes could be made public. This would create an incentive to vote carefully and deliberately

During the discussion, some members said that this issue and others were related to the question of whether to publish or suppress roll-call data from non-roll-call tallies.

If these data are to be published anyway, the incentive to vote carefully and deliberately is at least somewhat present in all votes.

Similarly, the question of what number of members should be able to order an electronic roll call by rising would be less important, and might have a different answer, under a system that publishes roll-call data for all votes.

Some of the discussion focused on the challenge of making these data available to the public in an intelligible form, particularly if there are many electronic tallies on issues great and small.

There could be confusion about which data are associated with which vote and difficulty for members of the public in using the information if there are a lot of data. Some levels of access might require technical skills in accessing and searching databases.

Mr. Leone said the Bylaws Committee would continue to discuss these and other issues in advance of the Committee's next meeting.

DISCUSSION:
Finance
Committee
Hearing

Alan Jones, a Finance Committee member, said the Committee's request for funding was on the Finance Committee's agenda for February 25 at 7:45 PM and would take about half an hour.

He said that approval for purchase of a voting system would be unlikely for 2014 because such a capital purchase would need to be part of the capital plan, which is already far advanced.

MOTION:
Adjournment

Mr. Beal moved that the meeting adjourn.
The motion passed.

Adjournment

The meeting adjourned at 9:15 PM.

Adam Auster, *Secretary*

APPROVED

February 20, 2013

Adam Auster, *Secretary*

Documents attached to these minutes:

1. Draft work timeline
2. Response of Option Technologies Interactive to RFI
3. Response of Quizdom to RFI

EVSC Workplan Timeline - 1/3/2013

	January				February				March				April			
	2		16		6		20		6		20		3		17	TM
Research/Discussion																
Which votes, and how																
Vendor RFI issuance, responses review																
Other towns bylaws & procedures																
IT dept. requirements, preferences					D											
Records retention & related issues																
Warrant Articles																
Review and file Warrant Articles			D													
Committee votes on recommendations							D		D							
FinCom hearing prep (appropriation)							D									
Selectmen hearing prep (bylaw)									D							
Consult with TM Procedures Committee																
Other output																
Report to Town Meeting													D			
Presentation at Town Meeting																D

D= projected deadline. First committee vote deadline is for FinCom hearing on appropriation; second is for BoS hearing on bylaws
Hearings: FinCom - 2/25/6, Selectman - no later than end of March

Annual Town Meeting commences Monday, April 22



February 1, 2013

Domenic Lanzillotti
Purchasing Officer
Town of Arlington
730 Massachusetts Avenue
Town Hall Annex
2nd Floor
Arlington, MA 02476

Dear Mr. Lanzillotti,

We at Option Technologies Interactive, LLC thank you for the opportunity to provide preliminary information regarding electronic voting support for Town Meetings in Arlington.

The response to your Request for Information is attached. Option Technologies Interactive is capable of providing a complete solution that satisfies every aspect of the Town Meeting voting process, from pre-event planning, equipment installation, rehearsals with the Moderator, Clerk and other team members, to voting on articles and motions and post-event removal of equipment. You can purchase or lease the equipment.

Option Technologies offers one of the world's largest rental fleets of advanced multi-digit radio keypads. We combine this cutting edge hardware with the widest family of proprietary interactive software products in the industry, including our optional proprietary Council Voting and Welcome Station modules that provide important layers of security and support convenient voter check-in and departure.

Our flagship OptionPower® tool is the most powerful interactive add-in available for electronic voting. It seamlessly allows for display of representative voting results as the Town Meeting unfolds. It provides a wide variety of interactive polling and data display tools that work well within the flow of Town Meeting deliberations.

Option Technologies Interactive (OTI) has set the standard for flawless interactive presentations and facilitated meeting support for more than twenty seven years. We have a proven track record of outstanding client service.

3301 Bartlett Blvd. | Orlando, Florida 32811 | ph 407.872.3333 | fx 407.872.3330 |
optiontechnologies.com

We have demonstrated our open Town Meeting capabilities on-site during meetings with other Massachusetts towns. We look forward to the opportunity to work with your team to explore this further.

We prepare pricing based on an in-depth study of the meeting location, the number of voters, the number of days. Please let us know if we may answer any additional questions beyond those addressed in this letter or if you would like on-site of OptionPower® electronic voting capabilities.

Best regards,

/s/

Mark A. Fite,
President/CEO

Town of Arlington
Request for Information (RFI No. 13-01)

Responses from Option Technologies Interactive

Basic requirements:

1. Must support 252 users (voting members of Town Meeting) and allow for additional users as needed.

- a. What is the maximum number of users your system will support?

Answer: The OptionPower Council Voting System with OptionFinder G2 keypads will support up to 8,000 voting representatives. The same system with OptionFinder G3 keypads will support up to 15,500 voting representatives. The same system with OptionFinder IQ keypads will support up to 2,500 voting representatives.

2. System must provide secure wireless coverage for a 56' x 66' auditorium, without interfering with (or being interfered by) cellphone transmissions, 802.1x wireless communications, or other common uses of the broadcast spectrum.

- a. How do your handheld units communicate with the receiver/base station?

Answer: All units use proprietary two way radio chips **and Frequency Hopping Spread Spectrum (FHSS)** communications to transmit, receive, and verify encrypted data packets. The encryption scheme is proprietary. The G2 and G3 systems operate on the 2.4 gigahertz band which is also utilized by 802.1x devices. These systems do not use 802.1x protocols or channels. Population of all 16 802.1x channels with high powered access points in the same room as the voting system, along with high utilization, can slow the performance of the voting system. The IQ keypad system uses the 900 mHz band and is not subject to these considerations with 802.1x.

- b. What is the maximum reliable range for your handheld units?

Answer: Range and performance of OTI keypads are determined by the physical characteristics of the room in which they operate, interference or harmonics on the radio spectrum in close proximity to the system and the position and elevation of the base station transceiver. Depending on these variables and the keypad type the reliable range can vary from 100 feet to 650 feet.

- c. How are communications secured from outside interference or manipulation?

Answer: System signals are encrypted and involve proprietary radio chips and methods as described above. The OTI electronic voting system involves additional security layers in addition to encrypted transmission. We will be happy to share additional information regarding system security in private communications with Town Representatives after signing a non-disclosure agreement. The OptionFinder G2 system relies on the public display, visual inspection, and verification of votes on screen by voting representatives to detect an attack. The OptionFinder G3 and IQ systems involve more sophisticated security methods for detection of an attack.

3. Software must run under Microsoft Windows

- a. What are the system requirements to run your software? System requirements should include system hardware, software, and any required reporting applications (e.g. must have MS Office version X, etc.).

Answer: Recommended system requirements include a computer with a 1 Ghz processor, 2 GB of memory and 3 GB of available hard drive space. The recommended operating system is Microsoft Windows 8, Windows 7, or Windows XP (32 or 64 bit). The system must also include a licensed version of Microsoft Office 2010 or 2007 (32 bit) including PowerPoint, Excel and Word.

- b. How does the receiver connect to the computer running Windows?

Answer: The base station is typically connected via a Universal Serial Bus (USB) cable. In some cases an Ethernet connection (RJ45) is used to remote the base station to an optimal transmission location in the facility.

- c. If the software runs on a vendor-supplied computer, it must:
 - i. Be able to connect to digital projectors using standard output connectors.
 - ii. Output VGA or BNC for compatibility with local cable access television.

Answer: Yes, the OptionPower system output is dependent on the graphics card installed for output. The typical system can output a VGA signal for public projection and television transmission.

4. Handheld units must be uniquely identifiable.

- a. How do you accomplish this?

Answer: Each handset is programmed with a numeric identity (e.g. 1-252) and channel (e.g. Channel 12). In addition, each handset is permanently programmed with a unique alphanumeric identity in non-volatile memory.

5. Each handheld unit should be linked to a specific user.

- a. In the event of a problem with the handheld unit, how long does it take to assign a new unit to a user.

Answer: This typically requires one to two minutes depending on the room layout.

6. The handheld unit must support three choices for the voter (Yes/No/Abstain).

- a. How are the choices indicated on the handheld unit?

Answer: 1=Yes, 2=No, 3=Abstain. The G3 keypad model confirms each choice to the individual handset display after tabulation (e.g. "Yes Received", "No Received").

- b. Does the handheld unit provide positive feedback on the device to confirm the vote cast by each user? How?

Answer: Yes. G2 keypad displays three bars when vote is acknowledged. G3 keypads display "Yes Received" etc. upon two way confirmation of tabulation.

- c. Can the handheld unit be used for other functions, such as requesting the attention of the moderator?

Answer: Yes, but this is not recommended.

7. Battery life for handheld units must be at least four hours.

- a. What is the battery life when handhelds are on and in "ready to vote" mode?

Answer: Battery life is normally one year with use four to eight hours per day five days per week.

- b. How does the user know the battery needs replacing?

Answer: The display battery status indicator signals a low battery.

- c. Do handheld units use rechargeable or replaceable batteries?
 - i. If replaceable, what batteries are required?

Answer: Two replaceable AA batteries.

- 8. System must be able to amend votes (if needed) after voting is closed.
 - a. Does system note that the vote was corrected in reports?

Answer: Yes. Corrections are handled by the system operator and noted on the reports.

Public Display requirements:

- 9. All displays must be legible from 70 feet away when projected on a large screen approximately 8 feet by 8 feet.

Answer: Audio visual industry guidelines suggest that an 8 foot high screen is appropriate for maximum projection distances of 48 feet to 64 feet. A ten foot high screen is recommended for projection distances of 70 feet.

- 10. Must be able to display text of voting questions.
 - a. How much text can be displayed on the voting screen?

Answer: The OptionPower Council Voting system allows the system operator to adjust the vote display screen. This screen displays the title of the motion, a grid of voter names precincts and votes, voting totals, a countdown timer and a pass/fail indicator. The size of the text and the font can be configured to optimize the public display. The grid of voter names and votes is fully configurable. It rotates manually or automatically until votes from all representatives have been displayed. The number of voter names displayed at one time in rows and columns is adjustable and a direct function of the size of the font selected. With an eight foot high screen a bold 16 point font is the smallest font size legible at 64 feet. This size font will allow for legible display of 48 voter names and results at one time. With this configuration, six screen rotations of updates to the voter grid will be required to display results from 252 representatives. A larger screen will allow for smaller fonts and the display of more names at one time.

- b. How do you enter question text prior to the meeting?

Answer: All voting slides are PowerPoint slides. These slides can be created, copied and edited for each warrant item and procedural motion anticipated. The title of the warrant item or motion may be entered the question text object at the top of each voting slide.

- c. Are there templates to make it easier to enter new items?

Answer: Yes. Templates of voting slides come with the system. Users also typically create and modify their own templates.

- d. Can the operator re-sequence questions during the meeting?

Answer: Yes, the operator can immediately jump to any voting slide.

- e. How do you amend questions or add new ones during the meeting?

Answer: Typically, the user exits the slide show mode, edits or creates a new polling slide in the slide edit mode and then resumes the voting session in slide show mode. In some cases it is faster to simply duplicate a voting slide in slide show mode.

- 11. Must be able to display the voting time remaining, along with the question text, while voting is in progress.

Answer: The OptionPower Council Voting system supports an optional countdown timer object which can be added and displayed on each voting screen. It displays on the voting slide with the motion text while voting is in progress. The size, font, coloration and position of this timer object can be configured along with the timer duration (in seconds).

- 12. When displaying results, operator must have the ability to display either aggregate totals or list votes by each individual.

- a. Can individual votes be sorted by multiple criteria (name, precinct, etc...)?

Answer: Yes. The display of individual vote results can be ordered by name, precinct number or assigned keypad number.

- b. Please describe any other configuration options for displaying votes (e.g. number of votes per screen).

Answer: Voting slides are fully configurable. This includes the number of voter names displayed at one time as well as the font size, font, coloration position of all objects on the voting screen.

Data management requirements

13. Must be able to record and store votes.

Answer: Yes. All votes are recorded and stored in a Microsoft SQL database.

14. Must be able to purge selected records from database.

Answer: Yes, the OptionPower Council Voting module allows users to purge data from a single polling session or from the entire database. The system also supports data back-up and export from sessions or the entire database.

15. Must be able to generate detailed reports of votes sorted by warrant item, user's name, precinct, date, or any combination thereof.

a. Is there a back end database language? If so, please specify.

Answer: Microsoft SQL.

b. Are there database licensing costs in addition to the cost of the main system?

Answer: No.

c. Can reports be easily generated and exported to standard non-proprietary forms such as Excel, PDF, Word or CSV? (Please specify formats supported).

Answer: All system reports are generated in Microsoft Excel or Microsoft Word and can be exported to PDF, Word or CSV files. A wide variety of report layouts are provided including an Excel Council Voting Report specifically designed for voting in representative town meetings. This report lists the name and precinct of each voter on separate lines along with all votes cast and the meeting date. The title of each warrant item or procedural motion is displayed as a column header. In addition, the system provides a raw data export design with headers for CSV data transfer. The OptionPower .opx file export utility provides for XML data transfers.

16. Must provide transaction logging for any edits to data once the voting has closed.

Answer: The OptionPower Council Voting system does not support data edit in the database. Voting results can be manually adjusted on reports and noted as amended.

Support:

17. Please describe your support and warranty options for hardware and software and on-site system operation. If there is associated cost, please provide details.

Answer: System purchase includes on-site training, software upgrades and technical support by phone and email for 12 months. The hardware warranty is 24 months. Extended enrollment in the OTI Software Maintenance program after the first year is optional and currently costs \$495 per year. This includes additional training, software updates and telephone and email support for an additional twelve months. OTI can provide extended hardware warranty, on-site system operator or on-site training for additional fees. The rates vary based on the number of hours and days required and the duration of the service agreement.

Financial:

18. Please estimate the **purchase** price for a system that meets our needs (if applicable).

Answer: Purchase price is estimated at \$19,000 to \$29,000 depending on hardware model selected and training specified.

a. What is the frequency of software updates?

Answer: Software updates typically occur several times per year. Major upgrades happen at least once per year.

b. What is the cost of software updates?

i. Is there a subscription/maintenance plan?

Answer: Yes.

ii. What would it cost?

Answer: \$495 per year.

19. Please estimate the yearly cost to **lease** a system that meets our needs (if applicable), including any software upgrades. Describe available service agreements for equipment operation or maintenance, if available.

Answer: OTI can provide full service system rental including keypad hardware, redundant control systems, video switches, Moderator and Clerk display screens and an on-site operator for preparation and execution of each Town Meeting session. The price for rental support depends on the number of meeting sessions and the duration (in years) of the service agreement. The estimated cost for such support is \$5,100 to \$15,300 depending on the number of town meeting sessions scheduled (OptionFinder G3 hardware).



- **Accurate vote tallies**
- **Instant results, even with thousands of voters**
- **Flexible Display Configuration**
- **Audit trail capability**
- **Anonymous or Rostered Results**

Amendment 23 - Vote Now

P01 Anthony, Jr. T	No	P02 Cooper, B	Abt	P03 Hall, A	Yes
P01 Barajas, T	Abt	P02 Geller, D	Abt	P03 Lefort, B	Yes
P01 Dostie, K	Yes	P02 Geller, M	Yes	P03 Moran, H	Yes
P01 Dwyer, J	Yes	P02 Goodard, M	No	P03 Southworth, C	Yes
P01 Gatlin, K	Abt	P02 Ham, L	Yes	P03 Woodward, P	Yes
P01 Gil, J	No	P02 Ham, P	Yes	P03 Zimmerman, M	Yes
P01 Larkin, M	Yes	P02 Langdon, Jr. D	Yes	P04 Chasman, H	Yes
P01 Orr, S	Yes	P02 Long, S	No	P04 Estes, S	Yes
P01 Orr, S	Yes	P02 Shul, S	Yes	P04 Lackey, L	Yes
P01 Pinn, B	Yes	P02 VACANT	Yes	P04 McLaughlin, C	No
P01 Vassar, E	No	P03 Battaglia, J	Yes	P04 McLaughlin, C	No
P01 Vassar, E	Abt	P03 Casselman, C	Abt	P04 Pabst, D	No
P01 Wainow, M	Yes	P03 Dempsey, K	Abt	P04 Sanchez, R	No
P02 Blanchard, J	Yes	P03 Dempsey, M	No	P04 Schneider, L	Yes
P02 Calder, M	Yes	P03 Dixon, O	Yes	P04 Schneider, P	Abt
P02 Cataldo, N	No	P03 Fritz, M	No	P04 Thober, K	Yes

Yes = 115 Abstain = 34 Pass

Council Voting Module™

The Council Voting Module™ is an add-on product for the OptionPower® audience response system. It is designed to facilitate voting and decision making by representative bodies and councils using OptionPower's wireless interactive polling systems.

If accuracy and time are important in your voting processes you will benefit from the precise and efficient capabilities of the Council Voting Module™. The time to prepare, administer and hand-count ballots and votes for resolutions, legislative issues, and motions can consistently be reduced by more than 50%. You will achieve measurable cost savings while conducting an orderly balloting process that satisfies representatives demand for speed and sophistication.

Key Features

Flexible Balloting - Add or remove initiatives and motions for balloting as easily as you edit a PowerPoint slide.

Recorded Ballots - Give your voting representatives the ability to instantly cast their vote and tabulate results for the entire assembly in seconds. All data is stored in a relational SQL database and tracked by the identity of the voter. An anonymous mode is included.

Accurate Vote Tallies - The participant voting devices are tracked by participant. Voters can change their minds while polling is open. Only the last response from each voter is recorded and tabulated.

Immediate Results - Tabulations are available live during polling or immediately after polling is closed. Avoid the expense and time of preparing distributing paper ballots or waiting for manual counts.

Flexible Display - Show individual names, districts or precincts along with voting status and vote cast (e.g. Yes, No, Abtain) for each representative during or after the vote. Changes manually or on a timed interval cycle to display results from an unlimited number of voting representatives.

Rostered Results - Use the roster tracking feature to enter and manage the identities of voting representatives.

Results Indicator - The optional Pass/Fail results indicator may be displayed automatically or on-demand. Immediately determine and display whether votes cast exceed the threshold required for 50%, two-thirds and three quarters majority.

Report and Export Data - Transmit results to an easy-to-use Excel file for record keeping and reporting needs.

CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity, or group of individuals.

Mark A. Fide
(Signature of individual submitting bid or proposal)

MARK A. FIDE
(Name of individual submitting bid or proposal)

Option Technologies Interactive, LLC
Name of Business

2/1/13
Date

Pursuant to M.G.L. Chapter 62C, Section 49A, I certify under the penalties of perjury that I have complied with all laws of the commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

FEID: 59-3625492
Social Security Number or
Federal Identification Number

Mark A. Fide
Signature of Individual or Responsible
Corporate Officer and Title

MARK A. FIDE
PRESIDENT

**NON-COLLUSION FORMS
MUST BE SIGNED AND
SUBMITTED WITH BID**

**TOWN OF ARLINGTON
MASSACHUSETTS**

Town Meeting Electronic Voting Study Committee

RFI No. 13-01
January 15, 2013

Request for Information (RFI)

The Town Meeting Electronic Voting Study Committee is seeking preliminary information on features, functionality and costs for electronic voting systems suitable for Representative Town Meeting use.

In May 2012, The Town of Arlington's Representative Town Meeting created the Electronic Voting Study Committee to study and make recommendations on whether Town Meeting should adopt electronic voting technology. Town Meeting currently votes by voice, standing count, or voice roll call.

The scope of the committee's work includes studying what technologies for electronic voting are available, the costs and benefits of these technologies, and the security features available. The committee has drafted anticipated technical requirements of such a system and invites vendors to respond to this RFI to assist in this study.

This is a preliminary RFI for the purpose of assessing available technologies. The Town of Arlington is not putting the project out for bid at this time. No procurement process can begin unless and until Town Meeting votes to adopt, fund, and implement electronic voting after receiving this committee's report at the upcoming Annual Town Meeting, which starts April 22, 2013.

Responses are due by **4:00 P.M. February 4, 2013** but earlier responses are encouraged. Responses by email are preferred, and should be sent concurrently to:

Domenic Lanzillotti
dlanzillotti@town.arlington.ma.us
Purchasing Officer
Town of Arlington

Eric Helmuth
eric@erichelmuth.com
Chair, Town Meeting Electronic Voting
Study Committee

If necessary, mailed responses may be sent to the Purchasing Officer, 730 Massachusetts Avenue, Town Hall Annex, 2nd Floor, Arlington, MA 02476.

Questions about anticipated requirements or requested responses in the RFI should be directed by email to the committee chair at eric@erichelmuth.com.

The Purchasing Officer may be contacted by phone at 781-316-3003 or fax at 781-316-3019.

RESPONSE GUIDELINES:

1. Address whether or not your product supports each Requirement below. Include explanatory information as appropriate and desired.
2. Answer any specific questions accompanying a given Requirement.

Objective

An electronic system that securely, rapidly and reliably counts, displays, and records votes for Arlington Town Meeting using handheld devices for each of our 252 voting members.

Basic requirements:

1. Must support 252 users (voting members of Town Meeting) and allow for additional users as needed
 - a. What is the maximum number of users your system will support?
Qwizdom supports up to 999 participants per host. Multiple host sessions can be run concurrently to increase that number. In real terms, we regularly do events that have up to 400+ participants that use our system without difficulty.
2. System must provide secure wireless coverage for a 56' X 66' auditorium, without interfering with (or being interfered by) cellphone transmissions, 802.1x wireless communications, or other common uses of the broadcast spectrum.
 - a. How do your handheld units communicate with the receiver/base station?
Our technology is a customized self-negotiation RF network based on the IEEE 802.15.4 specification.
<http://www.sensor-networks.org/index.php?page=0903503549>
http://en.wikipedia.org/wiki/IEEE_802.15.4
 - b. What is the maximum reliable range for your handheld units?
100 yards
 - c. How are communications secured from outside interference or manipulation?
The data is encrypted when transmitted. Acknowledgements also go back and forth with the two way communication.
3. Software must run under Microsoft Windows
 - a. What are the system requirements to run your software? System requirements should include system hardware, software, and any required supporting applications (e.g., must have MS Office version X, etc.).
Windows XP and later
Microsoft PowerPoint 2003 or later (registered version)
Microsoft Excel 2003 or later (registered version)
Microsoft .NET Framework 2.0 (included in installer)
Intel Pentium 233-MHZ or faster processor (Pentium III recommended)

256MB of RAM
200MB of free space
CD-ROM drive (optional)
Open USB Port

- b. How does the receiver connect to the computer running Windows?
Via a USB port.
- c. If software runs on a vendor-supplied computer, it must:
 - i. Be able to connect to digital projectors using standard output connectors
 - ii. Output VGA or BNC for compatibility with local cable access television
N/A.

4. Handheld units must be uniquely identifiable

- a. How do you accomplish this?
Out of the box, each handheld device has its own unique number that is shown on the device.

5. Each handheld unit should be linked to a specific user.

- a. In the event of a problem with the handheld unit, how long does it take to assign a new unit to a user?
There would be two ways to do this depending on how you choose to do your initial configuration. Either:
 - 1) Once the new unit is powered ON the user would simply have to enter their session ID to log into the event, or**
 - 2) They are handed a new remote and the new remote number is changed on the participant list to reflect the new user.**

In either instance, the time needed to make this change should be less than two minutes.

6. The handheld unit must support three choices for the voter (Yes/No/Abstain)

- a. How are the choices indicated on the handheld unit?
This would vary depending on the device being used.

With the Q2, no answer choices are displayed on the remote. The answers would need to be displayed on the screen. The participant would answer 1 for Yes, 2 for No or 3 for Abstain.

With our Q4, the answer choices of A, B and C would be displayed on the handheld remote screen and the participant would simply select on and press "Send". The question and specific answer choices (A='Yes') would need to be displayed in the screen.

With our Q6 or QVR, there is an option to send the question as well as the actual answer choice "Yes", "No" or "Abstain" to be displayed on the LCD screen.

- b. Does the handheld unit provide positive feedback on the device to confirm the vote cast by each user? How?

Yes. A “✓x” appears in the display screen signifying that an input was received.

- c. Can the handheld unit be used for other functions, such as requesting the attention of the Moderator?

Yes. A “Help” function is available on all our remotes.

7. Battery life for handheld units must be at least 4 hours

- a. What is the battery life when handhelds are on and in "ready to vote" status?

For “typical” use, which is a couple of hours each day, the batteries last about a year.

- b. How does the user know a battery needs replacing?

There is a battery life indicator on every remote.

- c. Do handheld units use rechargeable or replaceable batteries?

- i. If replaceable, what batteries are required?

Q2 – two AAA batteries

Q4 or Q6 – two AA batteries

- ii. If rechargeable, describe the charging station

N/A

8. Must be able to amend votes (if needed) after voting has closed

- a. Does system note that vote was corrected in reports?

If the question is just “reposed” only the final answer will appear in the reports.

If the question is resubmitted as a new question (Spontaneous Question), the results for this question will be tabulated as a separate question and the results of the original question will remain.

Public Display requirements:

9. All displays must be legible from 70 feet away when projected on a large screen approximately 8 feet x 8 feet.

Yes we have this capability. However the display device will play the largest role in the success of this requirement.

10. Must be able to display text of voting questions.

- a. How much text can be displayed on the voting screening?

Unlimited based on the amount of information that can clearly be displayed on a PowerPoint slide.

- b. How do you enter question text prior to meeting?

By creating an interactive PowerPoint presentation using the ActionPoint plugin software that we provide. It is very easy.

- c. Are there templates to make it easier to enter new items?
Whatever is available in PowerPoint or any theme that has previously been created can be used for any presentation.
 - d. Can the operator re-sequence questions during the meeting?
Not after the PowerPoint presentation has been launched as this capability does not exist in PowerPoint. Prior to the presentation being launched slides can be re-sequenced by simply dragging a slide to the new position as you would on any PowerPoint slide deck.
 - e. How do you amend questions or add new ones during the meeting?
There is an option to “Repose” a question which will replace the answers to that question or a new question (Spontaneous Question) can be posed “on the fly”.
11. Must be able to display voting time remaining, along with the question text, while voting is in progress.
Yes, the system can be configured to do this. A specific time can be established for individual slides or a global timer can implemented for the entire presentation on a per slide basis. While the slide is being presented the time can also be adjusted to allow for more time or stop and close the question.
12. When displaying results, operator must have ability to display either aggregate totals or list votes by each individual.
- a. Can individual votes be sorted by multiple criteria (name, precinct, etc...)?
Yes. Demographic slides need to be shown and answered prior to voting slides. Also, demographic information (such as Precinct) can be entered into a Participant List prior to the meeting.
 - b. Please describe any other configuration options for displaying votes (e.g., number of votes per screen)
The results screen is built in “Flash” giving several “on the fly” display options. Toggle between:
 - **Bar charts and pie charts.**
 - **Results by actual number or percentage.**
 - **Specific votes cast by participant.**
 - **Vote by demographic group.**

Data management requirements

13. Must be able to record and store votes
Yes. We have several reporting options
14. Must be able to purge selected records from database
Results are saved in separate files. Simply delete the file.

15. Must be able to generate detailed reports of votes sorted by warrant item, user's name, precinct, date, or any combination thereof.
- a. Is there a back end database language? If so, please specify.
No.
 - b. Are there database licensing costs in addition to the cost of the main system?
No. There are no recurring fees or service charges except for QVR (the web-based remote) which carries an annual license fee. There is also no charge for training or support.
 - c. Can reports be easily generated and exported to standard, non-proprietary formats such as Excel, PDF, Word or CSV? (Please specify formats supported).
Yes. PDF and CSV for use in Excel.
16. Must provide transaction logging for any edits to data once voting has closed
We do not offer this feature as part of our software. If exporting to Excel, using the "Review" option would track changes made any data.

Support:

17. Please describe your support and warranty options for hardware and software and on-site system operation. If there is an associated cost, please provide details.
We offer free support and online training. On-site training is quoted on an individual basis. Most training scenarios are easily handled via live online training. Support is via phone, email or online.
Handheld devices are warrantied for 1 year to be free of any defects.

Financial:

18. Please estimate the **purchase** cost for a system that meets our needs (if applicable)
The cost for a complete system that includes 252 - Q2 participant remotes, a facilitator remote, USB host, software, padded carrying case, batteries and training is estimated at \$10,600 plus shipping and handling. Hand held devices with higher capabilities will cost more.
- a. What is the typical frequency of software updates?
Every year to two years. We recently had an update so the next one will be a while.
 - b. What is the cost of software updates? - **NO**
 - i. Is there a subscription/maintenance plan? - **NO**
 - ii. What would it cost? - **N/A**
19. Please estimate the yearly cost to **lease** a system that meets our needs (if applicable), including any software upgrades. Describe available service agreements for equipment operation or maintenance, if available.
\$2,500 plus shipping for each one-time use.

Additional comments:

We also have a web-based virtual remote (QVR) that connects via any web-enabled device. (An app for iPhone and Android is also in development.) This would allow participants to vote using their cell phone, tablet or laptop. This option works in a mixed environment with our handheld devices as well. The cost for each QVR seat is \$9 per user per year.

I would be happy to set up a live online demonstration for you so you can educate yourself with how the software, remotes and QVR all work together.

Note: Certificate of non-collusion has been sent separately.

CERTIFICATE OF NON-COLLUSION

The undersigned certifies under penalties of perjury that this bid or proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certification, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other organization, entity, or group of individuals.

(Signature of individual submitting bid or proposal)

(Name of individual submitting bid or proposal)

Name of Business

Date

Pursuant to M.G.L. Chapter 62C, Section 49A, I certify under the penalties of perjury that I have complied with all laws of the commonwealth relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

Social Security Number or
Federal Identification Number

Signature of Individual or Responsible
Corporate Officer and Title

**NON-COLLUSION FORMS
MUST BE SIGNED AND
SUBMITTED WITH BID**